Ontario

Ministry of
Northern Development
and Mines

Sean Conway, Minister of Mines

ONTARIO GEOLOGICAL SURVEY

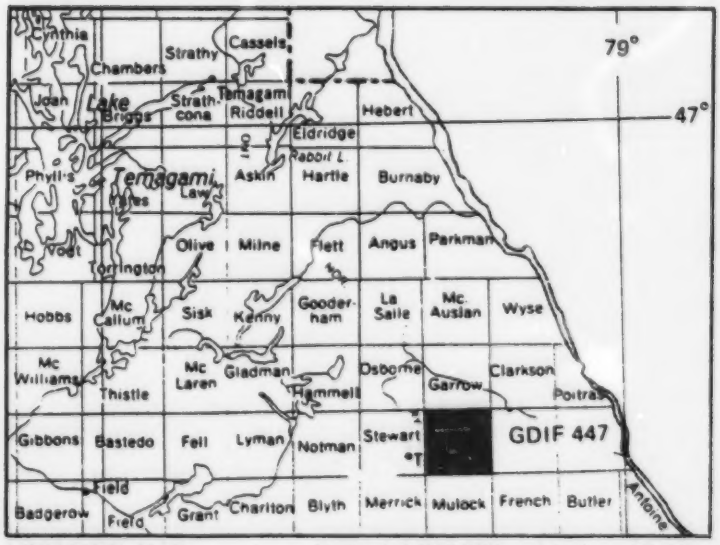
GEOLOGICAL DATA INVENTORY FOLIO

GDIF 447

LOCKHART TOWNSHIP

DISTRICT OF NIPISSING

Compiled by the Staff of
the Resident Geologist's Office
Cobalt



LOCATION MAP

Scale: 1:1 013 760 or 1 inch to 16 miles

NTS Number 31L/11

Mining Claim Map Number M-993

The project is part of the Canada-Ontario Mineral Development Agreement (COMDA).

STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Geological Survey does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Ontario Geological Survey
1988: Lockhart Township, District of Nipissing; Ontario Geological Survey Geological Data Inventory Folio 447, compiled by the staff of the Resident Geologist's Office, Cobalt, 19 pages and 1 Map.

Original Compilation by: Patricia Anderson, July 8, 1987

Date	Page Revised	Revised by

Date	Page Revised	Revised by

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ACCOMPANYING MAPS

Property Location Map 1
Exploration Data Map -
Map Scale 1: 31 680 or 1 inch to ½ mile

CONVERSION FACTORS FOR MEASUREMENTS IN ONTARIO GEOLOGICAL SURVEY PUBLICATIONS

If the reader wishes to convert imperial units to SI (metric) units or SI units to imperial units the following multipliers should be used:

CONVERSION FROM SI TO IMPERIAL			CONVERSION FROM IMPERIAL TO SI		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
			LENGTH		
1 mm	0.039 37	inches	1 inch	25.4	mm
1 cm	0.393 70	inches	1 inch	2.54	cm
1 m	3.280 84	feet	1 foot	0.304 8	m
1 m	0.049 709 7	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	1.609 344	km
			AREA		
1 cm^2	0.155 0	square inches	1 square inch	6.451 6	cm^2
1 m^2	10.763 9	square feet	1 square foot	0.092 903 04	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
			VOLUME		
1 cm^3	0.061 02	cubic inches	1 cubic inch	16.387 064	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.308 0	cubic yards	1 cubic yard	0.764 555	m^3
			CAPACITY		
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	4.546 090	L
			MASS		
1 g	0.035 273 96	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 75	ounces (troy)	1 ounce (troy)	31.103 476 8	g
1 kg	2.204 62	pounds (avdp)	1 pound (avdp)	0.453 592 37	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	907.184 74	kg
1 t	1.102 311	tons (short)	1 ton (short)	0.907 184 74	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	1016.046 908 8	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	1.016 046 908 8	t
			CONCENTRATION		
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

1 ounce (troy)/ton (short)	20.0	pennyweights ton (short)
1 pennyweight/ton (short)	0.05	ounce (troy) ton (short)

One gram(g) per tonne is equivalent to one part per million (1 ppm).

NOTE–Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries published by The Mining Association of Canada in co-operation with the Coal Association of Canada.

DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no'; if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

	SOURCES OF DATA	Data	Initial
1	Resident Geologist's Office Files	No	D.P.A.
2	Assessment Files Research Office, Toronto	No	D.P.A.
3	ODM General Index; 9 Volumes	No	D.P.A.
4	Catalogue of Airborne Geophysical Surveys (ODM)	No	D.P.A.
5	ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars	No	D.P.A.
6	ODM Industrial Mineral Reports	No	D.P.A.
7	Bibliography of Post Precambrian Theses - Karrow (ODM MP 1)	No	D.P.A.
8	Bibliography of Precambrian Theses - Ginn (ODM MP 2)	No	D.P.A.
9	Newspaper Clippings File	No	D.P.A.
10	GSC Index to Publications	Yes	D.P.A.
11	OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77	Yes	D.P.A.
12	OGS Index Maps	No	D.P.A.
13	Source Mineral Deposit Records (O.G.S.)	No	D.P.A.
14	Author - Subject Articles File	No	D.P.A.
15	Miscellaneous Papers: ODM & OGS	Yes	D.P.A.
16	ODM Geological Circulars: OGS Study Series	No	D.P.A.
17	ODM Preliminary Reports: ODM Bulletins	No	D.P.A.
18	ODM – OGS Open File Reports	Yes	D.P.A.
19	OGS Northern Ontario Engineering Geology Terrain Studies	Yes	D.P.A.
20	OGS Aggregate Resources Inventory Papers	N.A.	D.P.A.
21	OGS Mineral Potential Maps	No	D.P.A.
22	Theses on File, Cobalt	No	D.P.A.
23	Aerial Photographs on File, Toronto	Yes	D.P.A.

METALS AND MINERALS REFERENCES LIST

- Δ anh. . . . . .Anhydrite
- Δ ank. . . . . .Ankerite
- Δ anna . . . . . Annabergite
- Δ ap. . . . . .Apatite
- Δ arg . . . . . Argentite
- Δ As . . . . . .Arsenic
- Δ asp . . . . . .Arsenopyrite
- Δ asb . . . . . .Asbestos
- Δ ba. . . . . .Barite
- Δ be. . . . . .Beryl
- Δ Bi. . . . . .Bismuth
- Δ bn . . . . . .Bornite
- Δ bran . . . . . .Brannerite
- Δ bruc . . . . . .Brucite
- Δ Cd . . . . . Cadmium
- Δ calc. . . . . .Calcite
- Δ carb . . . . . .Carbonate
- Δ cel . . . . . .Celestite
- Δ cc. . . . . .Chalcocite
- Δ cp. . . . . .Chalcopyrite
- Δ ch. . . . . .Chert
- Δ clay . . . . . .Clay
- Δ Co . . . . . Cobalt
- Δ cob. . . . . Cobaltite
- Δ cb. . . . . .Columbite
- Δ Cu . . . . . .Copper
- Δ cor . . . . . Corundum
- Δ dol . . . . . Dolomite
- Δ ep. . . . . Epidote
- Δ ery . . . . . Erythrite
- Δ fel . . . . . .Feldspar
- Δ fl . . . . . .Fluorite (flurospar)
- Δ fu. . . . . .Fuchsite
- Δ gn. . . . . .Galena
- Δ gt. . . . . .Garnet
- Δ goe. . . . . .Goethite
- Δ Au . . . . . Gold
- Δ gf. . . . . .Graphite
- Δ gl . . . . . Gravel
- Δ gyp. . . . . Gypsum
- Δ hem . . . . . Hematite
- Δ il . . . . . .Ilmenite
- Δ Fe . . . . . .Iron
- Δ IF. . . . . Iron Formation
- Δ jas . . . . . Jasper
- Δ kaol . . . . . .Kaolinite (kaolin)
- Δ ky . . . . . Kyanite
- Δ Pb . . . . . Lead
- Δ lim . . . . . Limonite
- Δ Li. . . . . Lithium
- Δ mgst . . . . . .Magnesite
- Δ mag . . . . . .Magnetite
- Δ mc . . . . . Malachite
- Δ Mn . . . . . Manganese
- Δ mb . . . . . .Marble
- Δ mar. . . . . Marcasite
- Δ ma . . . . . .Marl
- Δ mi . . . . . Mica
- Δ ml . . . . . .Millerite
- Δ mo . . . . . .Molybdenite
- Δ Mo . . . . . .Molybdenum
- Δ mon . . . . . Monazite
- Δ ne. . . . . Nephelite (nepheline)
- Δ nc. . . . . .Niccolite
- Δ Ni. . . . . Nickel
- Δ Nb . . . . . .Niobium
- Δ Pd . . . . . .Palladium
- Δ peat . . . . . .Peat
- Δ pent . . . . . .Pentlandite
- Δ Pt. . . . . .Platinum
- Δ py . . . . . .Pyrite
- Δ pyl . . . . . Pyrochlore
- Δ pyrl . . . . . .Pyrolusite
- Δ po . . . . . .Pyrrhotite
- Δ q . . . . . .Quartz
- Δ qcv . . . . .Quartz carbonate vein
- Δ ra. . . . . .Radioactive minerals
- Δ RE . . . . . .Rare Earths
- Δ sd. . . . . Sand
- Δ sgl . . . . . Sand and gravel
- Δ ss . . . . . .Sandstone
- Δ scap . . . . . Scapolite
- Δ shee . . . . . .Scheelite
- Δ serp . . . . . Serpentine
- Δ sh. . . . . .Shale
- Δ sid . . . . . Siderite
- Δ si . . . . . .Silica
- Δ Ag . . . . . .Silver
- Δ sl . . . . . Slate
- Δ sm . . . . . .Smaltite
- Δ sod . . . . . Sodalite
- Δ spec . . . . . Specularite
- Δ sp. . . . . .Sphalerite
- Δ spd . . . . . .Spodumene
- Δ staur . . . . . .Staurolite
- Δ stib. . . . . Stibnite
- Δ st . . . . . .Stone
- Δ talc. . . . . .Talc
- Δ Te . . . . . .Tellurium
- Δ td. . . . . Tetrahedrite
- Δ th. . . . . .Thorite
- Δ Th . . . . . .Thorium
- Δ thuc . . . . . Thucholite
- Δ ti . . . . . Titanite
- Δ Ti. . . . . Titanium
- Δ tour . . . . . .Tourmaline
- Δ trap . . . . . .Trap rock
- Δ W. . . . . Tungsten
- Δ uran . . . . . Uraninite
- Δ U . . . . . .Uranium
- Δ verm . . . . . .Vermiculite
- Δ Y . . . . . Yttrium
- Δ Zn . . . . . .Zinc
- Δ zr. . . . . Zircon

Solid triangles indicate metal and mineral occurrences shown on the accompanying maps or listed in Drillhole Summary.

LOCKHART TOWNSHIP

MINERAL OCCURRENCES

Map Ref. Letter	Name(s)	Mineralization	Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
	No data available as of July 8, 1987				

GDIF FORM NO. 1

4 LOCKHART TOWNSHIP

TYPE OF WORK	Numbers below represent the year in which the work was done; e.g., 68 for 1968.																		
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE COBALT COMPANY/AUTHOR (file number)	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATON	SELF POTENTIAL	RESISTIVITY			
No data available as of July 8, 1987																			

GDIF FORM NO. 2

LOCKHART TOWNSHIP

DRILLHOLE SUMMARY

Map Drilling Location Number	Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
	No data available as of July 8, 1987								

GDIF FORM NO. 3

6 LOCKHART TOWNSHIP

AIRBORNE GEOPHYSICAL SURVEY DATA

No.	By For	Type of Survey	Flight Altitude	Flight Line Direction	Flight Line Spacing
	No data available as of July 8, 1987				

GDIF FORM NO. 4

LOCKHART TOWNSHIP

Map Sample Site Reference Number	GEOCHEMICAL SURVEY DATA		By	Reference
	Type of Survey	Analysis For		
	No data available as of July 8, 1987			

GDIF FORM NO. 5

MISCELLANEOUS DATA

AGE DATING

Site	Method	Material	Reference	Result
	No data available as of July 8, 1987			

LANDSAT COLOUR PHOTO - NTS 31M

LS	TR	FR	Date of Imagery	Band	Cycle/Day
2	20	27	13/10/81	C_1	136/10

on file in Cobalt Office

OBIF FORM NO.6

NEWSPAPER CLIPPINGS FILE

NOTE: A file of newspaper clippings about the companies listed below, who have worked in this area, is maintained in the Regional/Resident Geologist's Office.

No data available as of July 8, 1987

ODM GENERAL INDEX SEARCH

Words searched: Lockhart Township
Mitchell Lake
Perchfin Lake
White Lake

Index Volume	Listing:	Report Volume	Part	Page
	No data available as of July 8, 1987			

GDIF FORM NO. 8

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page

GDIF FORM NO. 5

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		REGIONAL GEOLOGICAL COMPILATION MAPS		
Ayers, L.D. Lumbers, S.B., Milne, V.G., Robeson, D.W.	1971	Ontario Geological Map, East Central Sheet	ODMNA Map 2198	1:1 013 760
Card K.D. et al	1971	Sudbury-Cobalt Sheet, Geological Compilation Series, Algoma, Manitoulin, Nipissing, Parry Sound, Sudbury & Timiskaming Districts, Ontario	ODMNA Map 2188	1:253 440
Card, K.D., Lumbers, S.B.,	1977	Sudbury-Cobalt, NTS 31L/W, 31M/SW, 41I, 41P/S, Sudbury & AL 5 Districts	OGS Map 2361	1:253 440
Lumbers, S.B., Milne, V.G.	1979	Ontario Geological Map, East Central Sheet, NTS 31/NW, 32/W, 41/N, 42	OGS Map 2393	1:1 013 760
Easton, R.M.	1986	Geochronology Compilation Map for Ontario: Sheet 1: Southern Ontario; Grenville Province and Environs, Ar-Ar and K-Ar Isotopic Systems	OGS Map P. 2840	1:1 013 760
Easton, R.M.	1986	Geochronology Compilation Map for Ontario: Sheet 2: Southern Ontario; Grenville Province and Environs, Rb-Sr, Nd, Sm, U-Pb and other Isotopic Systems	OGS Map P.2841	1:1 013 760
Easton, R.M.	1986	Geochronology Compilation Map for Ontario: Sheet 3: East Central Ontario, All Isotopic Systems	OGS Map P.2842	1:1 013 760

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		GEOPHYSICAL MAPS		
	1965	Temiscaming, Ontario-Quebec, NTS 31L/11	GSC Map 1479G	1:63 360
GSC-OGS	1978	Airborne Gamma-Ray Spectrometry Maps and Profiles	OGS Map Set 1649-1687	1:250 000
Gupta, V.K., Wadge, D.R.	1980	Bouger Gravity and Generalized Geological Map, North Bay-Marten River Area, NTS 31L/W, 41I/E, District of Nipissing & Sudbury, Ontario	OGS Map 2297	1:100 000
Gupta, V.K., Grant, F.S., Boud, A.	1981	A Gravity Study in North-Central Ontario, Districts of Sudbury, Nipissing and Temiskaming; in Summary of Field Work,1981, edited by J. Wood et al, Ontario Geological Survey	OGS MP 100	No. 26 pp.160-164
Gupta, V.K.	1982	Gravity and Aeromagnetic Studies in North-Central Ontario: A Progress Report; in Summary of Field Work, 1982, edited by J. Wood et al, Ontario Geological Survey	OGS MP 106	No. 24 pp.165-167
GSC	1984	Sudbury, Ontario and Quebec, IMW NL 16/17, Magnetic Anomaly Map	GSC Map NL 16/17-M	1:1 000 000
Gupta, V.K.,	1985	Cobalt Embayment Interpretation: Depth to Basement and Distribution of Nipissing Diabase from Aeromagnetics; in Summary of Field Work and Other Activities, 1985, edited by J. Wood, O.L. White, R.B. Barlow and A.C. Colvine, Ontario Geological Survey	OGS MP 126	pp.178-181
		Geophysical Map	GSC Map 7066G	1:253 440
		Earth Physics Branch Gravity Map Series	EPB Maps No. 84 and 134	1:50 000

GDIF FORM NO.9

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		SURFICIAL, PLEISTOCENE, TERRAIN ENGINEERING		
	1975	Témiscaming. Ontario/Quebec, topographic	NTS 31L/11	1:50 000
	1978	North Bay, topographic	NTS 31/L	1:250 000
Vincent, J-S., Hardy, L.	1979	The Evolution of Glacial Lakes Barlow and Ojibway, Quebec and Ontario	GSC Bulletin 316	
Gartner, J.F.	1980	Tomiko Area, NTS 31L/NW, Nipissing District, Ontario	NOEGTS 96 OGS Map 5040	1:100 000
MNR	1982	Ontario Basic Map Sheets	MNR Maps 20 17 6200 51500 20 17 6300 51500 20 17 6200 51600 20 17 6300 51600	1:20 000
		Lockhart Township Claim Map	MNR Map M-993	1"=40 Ch.
		Tomiko, topographic	NTS 31L/NW	1:126 720
		MINERAL POTENTIAL		
Springer, J.S.	1978	Ontario Mineral Potential, Parts of North Bay, Deep River & Ville Marie, NTS 31 K,L,M, Renfrew County & 2 Districts, Ontario	OGS Map P.1510	1:250 000
Vos, M.A., Smith, B.A., Stevenato, R.S.	1981	Industrial Minerals of the Sudbury Area, NTS 31/E, 31L, 41H, 41I, Sudbury, Nipissing, Parry Sound, & Manitoulin Districts, Ontario	OGS OFR 5329	

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		MINERAL POTENTIAL		
Springer, J.S., Robertson, J.A., Vos, M.A.	1982	Mineral Potential Map of Ontario, East Central Sheet, NTS 31/NW, 32/W, 41/N, 42	OGS OFR 5327	
Yundt, S.E. et al	1982	Industrial Minerals of Ontario	OGS Map P.2591	1:1 500 000
Vos, M.A., Abolins, T., McKnight, R.L.W., Smith, V.	1983	Industrial Minerals of Northern Ontario, Parts 1 and 2, NTS 31/NW, 32W, 41/N, 42, 43, 52, 53	OGS OFR 5386	
Vos, M.A., Smith, V.	1983	Industrial Minerals of Northern Ontario-Supplement 2	OGS OFR 5439	
		GEOCHEMICAL		
		No data available as of July 8, 1987		
		GEOLOGICAL REPORTS AND MAPS		
Bell, R.	1892	The Laurentian and Huronian Systems North of Lake Huron	*OBM AR 1891, Vol. 1	pp. 63-94
Bell, R.	1892	Map of Parts of Districts of Nipissing & Algoma Exhibiting the Country around Sudbury & Eastward to Ottawa River	*OBM Map 1a	1:253 440
Barlow, A.E.	1899	Report on the Geology and Natural Resources of the Area Included by the Nipissing and Timiskaming Map Sheets, Comprising Portions of the Districts of Nipissing, Ontario and the County of Pontiac, Quebec.	*GSC AR X, pt. 1 *GSC Maps 599 and 606	

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages
		GEOLOGICAL REPORTS AND MAPS		
Barlow, A.E.	1908	Second Edition of a Report on the Geology and Natural Resources of the Area Included by the Nipissing and Timiskaming Map Sheets	*GSC Separate Report 962 *GSC Map 944	
Roscoe, S.M.	1957	Geology and Uranium Deposits, Quirke Lake-Elliot Lake-Blind River Area, Ontario (Preliminary Report)	GSC Paper 56-1	
Lumbers, S.B.	1967	Tomiko Sheet, District of Nipissing, Ontario	ODM Map P.394	1:126 720
Lumbers, S.B.	1971	Tomiko Area, East Half, Nipissing District, Ontario	ODMNA Map P.679	1:63 360
		JOURNAL ARTICLES, THESES, TECHNICAL REPORTS		
		No data available as of July 8, 1987		

LOCKHART TOWNSHIP

SELECTED REFERENCES

Author	Date	Title	Reference	Map Scales and/or Report Pages

GDIF FORM NO. 9

NOTES AND ADDENDA

The exploration data map shows only the most important minerals found at each site. All the minerals noted are listed in the mineral occurrences or the drill hole data.

On the maps, only areas for which work has been submitted to the Ministry are shown and thus a company may hold, or have held in the past, more ground than is shown.

No present or past producers.

AIR PHOTOS - on File in Toronto

Only 1977 photos are available for viewing at the Public Service Centre, Rm.1640, Whitney Block.

Photos can also be ordered here for the years 1946, 1958 and 1970.

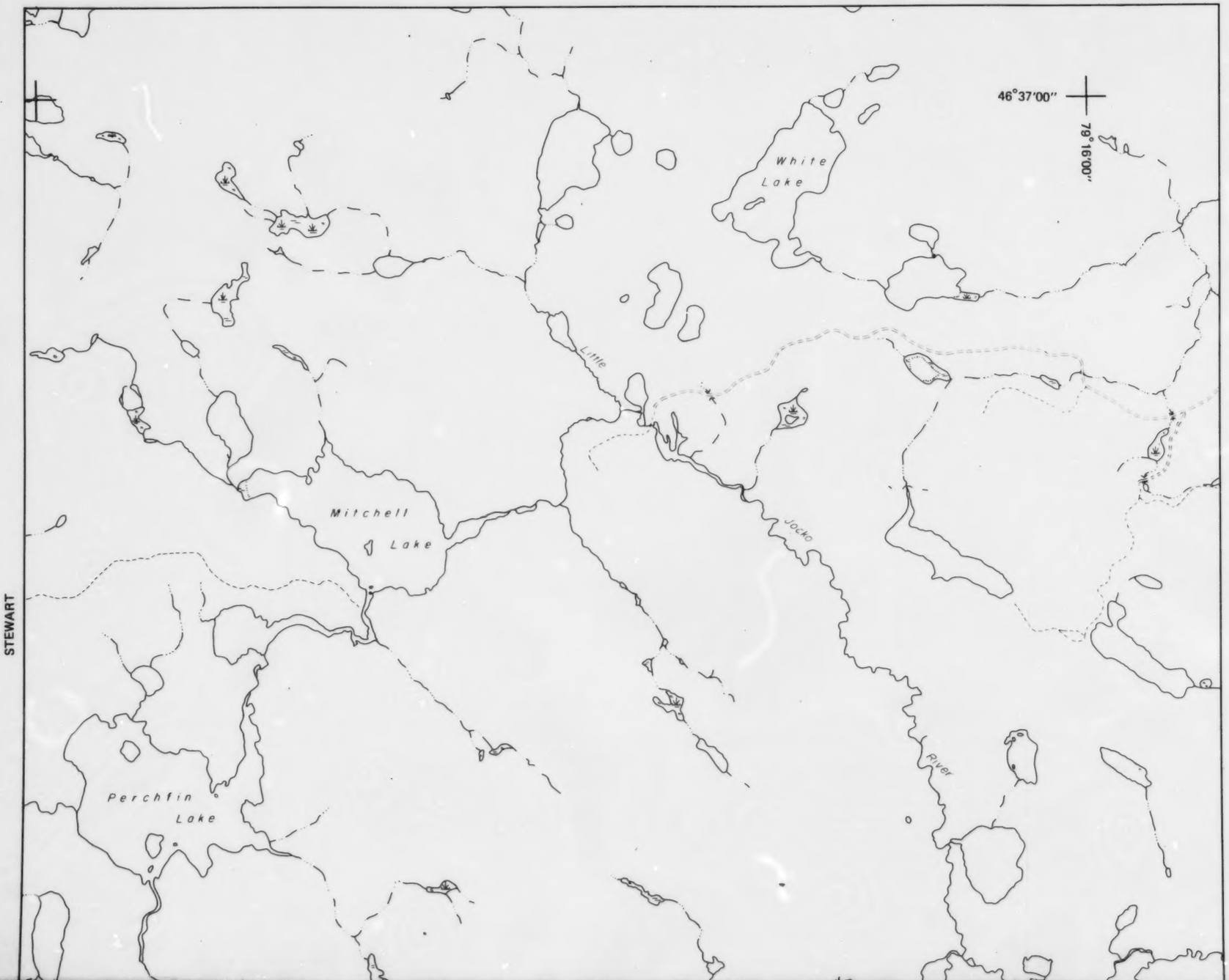
Year	Roll	Strip	Photo
1946	29	150	119-127
	32	151	40-48
	26	152	36-44
	25	153	74-82
1958	051	4626	17-24
	059	4625	161-167
	060	4624	4-11
	060	4623	47-54
1970	33	4626	98-104
	33	4625	55-62
	33	4624	36-42
	46	4623	34-41
1977	23	4624	187-193
	23	4625	228-235
	55	4624	245-252
	55	4623	102-109
	66	4622	131-135
	96	4622	73-79

GDIF FORM NO.10

GARROW

STEWART

JOCKO



Ministry of Northern Development and Mines

Ontario

Sean Conway, Minister of Mines

ONTARIO GEOLOGICAL SURVEY

PROPERTY LOCATION MAP

GEOLOGICAL DATA INVENTORY FOLIO 447

(Map 1 of 1)

LOCKHART TOWNSHIP

DISTRICT OF NIPISSING

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile

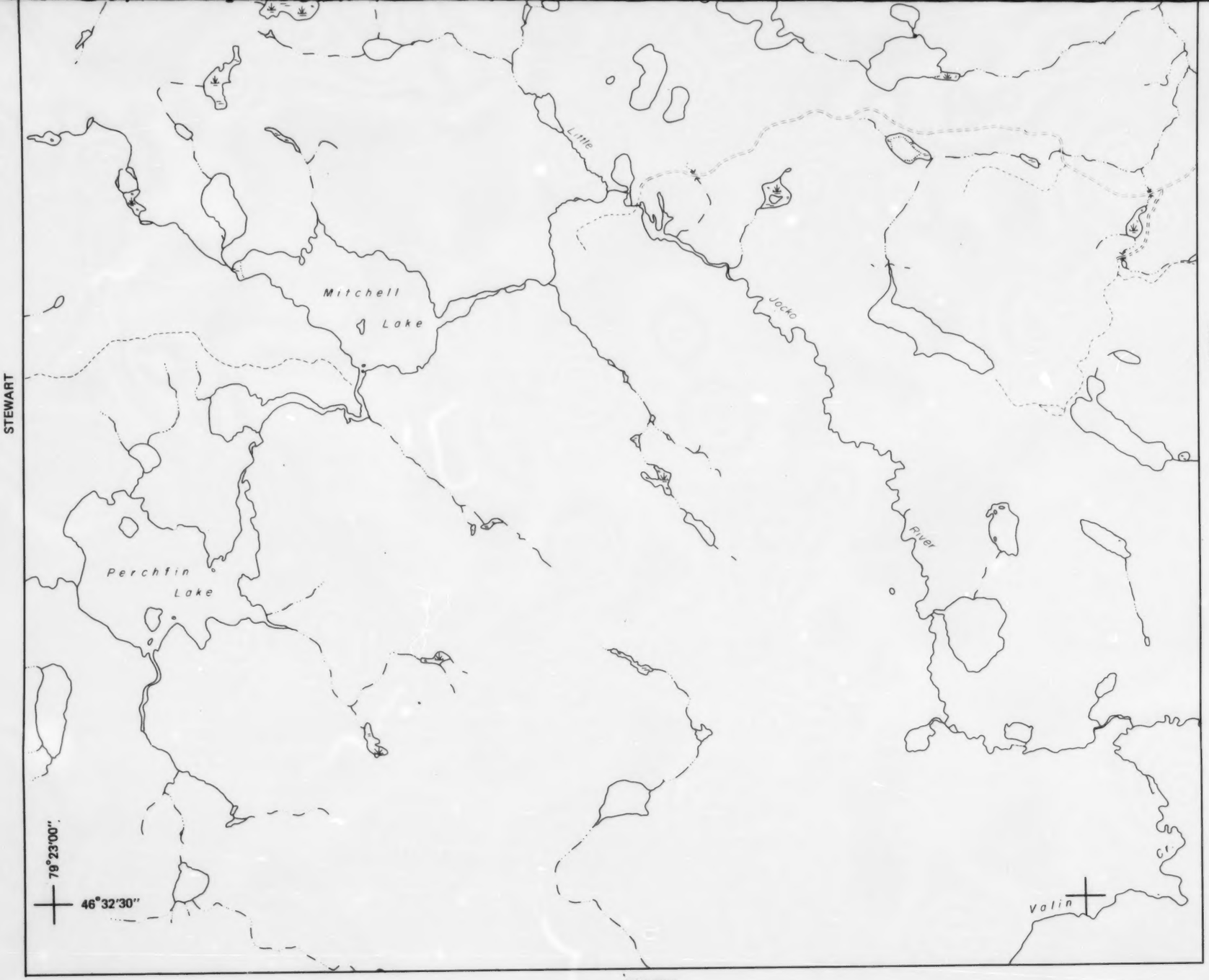
LOCKHART TOWNSHIP

DISTRICT OF NIPISSING

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile



STEWART

JOCKO

MULOCK

EXPLORATION DATA FILE AREAS

- Reference number is always inside work area outlined. See listing in text pages.
- Small area of exploration
- File covers whole township or area